

We Claim:

1. A method of creating an output document in a first software program, the output document comprising text input through the use of the first software program and values stored in at least one data file accessible through second software program but not through the first software program,  
the method comprising:

a) storing attributes in at least one data file accessed by the third software program for a first parameter and a second parameter for parameters in the at least one data file accessed through the second software program;

b) creating a list of parameter name tags with at least one parameter name tag for the first parameter and at least one parameter name tag for the second parameter value;

c) creating a document template in the first software program;

d) inserting at least one variable tag corresponding to a parameter name tag selected from the list of parameter name tags into the document template;

e) outputting the template to a file in a format that can be edited without the use of the first software program;

f) accessing by a third software program the outputted template in the format that can be edited without the use of the first software program;

g) detecting through the use of the third software program, the first of the inserted at least one variable tags;

h) creating through use of the third software program, a set of computer commands to obtain an appropriate data value corresponding to the parameter corresponding to the first of the inserted variable tags from the at least one file accessed by the second software program;

i) accessing the at least one file through the second software program to obtain an appropriate data value corresponding to the parameter;

j) creating a file based on the outputted template in the format that can be edited outside of the first software program with the appropriate data value inserted in place of the variable tag;

k) writing the created file in a format accessible by the first software program; and

1) accessing the created file through the first software program to obtain the output document containing the appropriate data value in place of the inserted variable tag;

whereby a user can control the placement of the at least one variable tag into the document template created in the first program and obtain the output document containing the appropriate data value for the corresponding parameter in place of the inserted first of at least one variable tag without the user directly entering any data retrieval requests through the second software program.

2. The method of Claim 1 wherein the third software program is the same as the second software program but the third software program is not the same as the first software program.

3. The method of Claim 1 wherein:

the step of inserting at least one variable tag into the document template includes concatenating the parameter name tag with at least one tag character; and

the step of detecting through the use of the third software program, the first of the inserted variable tag in the outputted template comprises an effort to locate the presence of the at least one tag character.

4. The method of Claim 1 wherein the step of detecting through the use of the third software program, the first of the inserted at least one variable tags in the outputted template comprises an effort to locate a tag marker.

5. The method of Claim 4 wherein the tag marker comprises the use of a font reserved for use with variable tags.

6. The method of Claim 1 wherein the step of detecting through the use of the third software program, the first of the inserted at least one variable tags in the outputted template comprises an effort to locate a text string corresponding to at least a section of one of the parameter name tags.

7. The method of Claim 1 wherein the step of inserting at least one variable tag corresponding to the parameter name tag selected from the list of parameter name tags into the document template is performed by dragging a representation of a parameter name tag from the list of parameter name tags and dropping the representation into a desired position within the template.

8. The method of Claim 1 wherein the step of creating a document template in the first software program comprises opening a document accessible through the first software program and modifying the opened document to create the document template.

9. The method of Claim 1 wherein the third software program is distributed between a client module of the third software program and a server module of the third software program wherein the list of parameter name tags is stored on a server remote from a client computer and made available so that templates created on the client computer can insert at least one variable tag corresponding to a selected parameter name tag from the list of parameter name tags into the document template.

10. The method of Claim 1 wherein the set of computer commands to obtain the appropriate data value corresponding to the parameter corresponding to the first of the inserted variable tags is stored such that subsequent uses of the outputted template can be performed without creating anew this set of computer commands.

11. The method of Claim 1 further comprising the step of  
Creating through use of the third software program, a second set of computer commands to obtain an appropriate data value corresponding to the parameter corresponding to the second of the inserted variable tags from the at least one file accessed by the second software program whereby two queries are executed to obtain the data value for the parameters associated with the first and second variable tags.

12. The method of Claim 1 wherein:

the step of accessing the at least one file through the second software program to obtain an appropriate data value corresponding to the parameter yields at least three values which were separate entries in the at least one data file accessed by the second computer program;  
5 and

the step of creating the file based on the outputted template in the format that can be edited outside of the first software program with the appropriate data value inserted in place of the variable tag includes the sub-step of combining the at least three values into a string with the addition of at least one comma and an "and" inserted into the string.

13. A method of creating an output document in a first software program, the output document comprising text input through the use of the first software program and at least one value stored in at least one data file accessible through second software program but not through the first software program and at least one value stored in at least one data file accessible through a fourth software program, different from the second software program, the  
15 at least one data file accessible through the fourth software program not accessible through the first software program, the method comprising:

a) storing attributes in at least one data file accessed by the third software program for a first parameter and a second parameter for parameters in the at least one data file  
20 accessed through the second software program;

b) creating a list of parameter name tags with at least one parameter name tag for the first parameter and at least one parameter name tag for the second parameter value;

c) creating a document template in the first software program;

d) inserting at least one variable tag corresponding to a parameter name tag  
25 selected from the list of parameter name tags into the document template;

e) outputting the template to a file in a format that can be edited without the use of the first software program;

f) accessing by a third software program the outputted template in the format that can be edited without the use of the first software program;

g) detecting through the use of the third program, the first of the inserted at least  
30 one variable tags;

h) creating through use of the third program, a set of computer commands to obtain an appropriate data value corresponding to the first parameter corresponding to the first of the inserted variable tags from the at least one file accessed by the second software program;

5 i) detecting through the use of the third program, the second of the inserted at least one variable tags;

j) creating through use of the third program, a set of computer commands to obtain an appropriate data value corresponding to the second parameter corresponding to the second of the inserted variable tags from the at least one file accessed by the fourth software program;

10 k) accessing the at least one file through the second software program to obtain an appropriate data value corresponding to the first parameter;

l) accessing the at least one file through the fourth software program to obtain an appropriate data value corresponding to the second parameter;

15 m) creating a file based on the outputted template in the format that can be edited outside of the first software program with the appropriate data values inserted in place of the first variable tag and in place of the second variable tag;

n) writing the created file in a format accessible by the first software program; and

20 o) accessing the created file through the first software program to obtain the output document containing the appropriate data values in place of the inserted first and second variable tags;

25 whereby a user can control the placement of variable tags into the document template created in the first program and obtain the output document containing the appropriate data values for the corresponding parameters in place of the inserted variable tags without the user directly entering any data retrieval requests through the second computer program and without the user directly entering any data retrieval requests through the fourth computer program.

14. A method of creating an input screen created by a third program based on an input form template from a first software program, the input screen for receiving input values for entry into at least one data file accessed through a second computer program, the method comprising:

5 a) storing attributes in at least one data file accessed by the third software program for a first parameter and a second parameter for parameters in at least one data file accessed through the second software program;

b) creating a list of parameter name tags with at least one parameter name tag for the first parameter and at least one parameter name tag for the second parameter value;

10 c) creating the input form template in the first software program;

d) inserting at least one variable tag corresponding to a parameter name tag selected from the list of parameter name tags into the input form template;

e) writing the input form template to a file in a format that can be read without the use of the first software program;

15 f) accessing by a third software program the input form template in the format that can be read without the use of the first software program;

g) detecting through the use of the third program, the first of the inserted at least one parameter name tags;

20 h) creating through use of the third program, the input screen based on the input form template with each variable tag replaced by an input field suitable to receive input of an appropriate data value for the parameter corresponding to each of the inserted variable tags; and

i) making the completed input screen accessible to a least one user so the user can provide input values into the input fields for entry into the corporate data file.

25 15. The method of Claim 14 wherein a pick list is associated with at least one parameter and the pick list association is stored as an attribute associated with that parameter such that the step of creating in the input screen comprises the automatic replacement of the variable tag associated with that parameter with a pick list input dialog that constrains the input to the  
30 selection of one of an enumerated list of choices for that pick list.

16. The method of Claim 14 wherein the stored attributes for the first parameter are used by the third program to perform data validation checks before allowing input from the user to be submitted for inclusion in the set of at least one data file accessed through the second program.

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17. The method of Claim 14 wherein the third software program is the same as the second software program but the third software program is not the same as the first software program.

18. The method of Claim 14 wherein:

10 the step of inserting at least one variable tag into the document template includes concatenating the parameter name tag with at least one tag character; and

the step of detecting through the use of the third program, the first of the inserted variable tag in the outputted template comprises an effort to locate the presence of the at least one tag character.

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19. The method of Claim 14 wherein

the step of detecting through the use of the third program, the first of the inserted at least one variable tags in the outputted template comprises an effort to locate a tag marker.